

DFW

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re the Application of:

DENG et al.

Serial No.: 10/823,397

Filed: April 12, 2004

Atty. File No.: 3161-18-3

For: "METABOLIC ENGINEERING FOR  
ENHANCED PRODUCTION OF  
CHITIN AND CHITOSAN IN  
MICROORGANISMS"

INFORMATION  
DISCLOSURE STATEMENT

CERTIFICATE OF MAILING

I HEREBY CERTIFY THAT THIS CORRESPONDENCE IS BEING  
DEPOSITED WITH THE UNITED STATES POSTAL SERVICE AS  
FIRST CLASS MAIL IN AN ENVELOPE ADDRESSED TO THE  
COMMISSIONER FOR PATENTS, P.O. BOX 1450, ALEXANDRIA,  
VA 22313-1450 ON 11/17/04

BY: Sheridan Ross P.C.

Mail Stop Amendment  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

The references cited on attached Form PTO-1449 are being called to the attention of the Examiner.

☒ Copies of the cited non-patent and/or foreign references are enclosed herewith.  
☐ Copies of the cited U.S. patents and/or patent applications are enclosed herewith.  
☒ Copies of the cited U.S. patents/patent application publications are not enclosed in accordance with the waiver dated July 11, 2003, whereby patent applications filed after June 30, 2003 and international applications that have entered the national stage under 35 U.S.C. § 371 after June 30, 2003 need not submit copies of U.S. patents and U.S. patent application publications.

☐ Copies of the cited references are not enclosed, in accordance with 37 CFR 1.98(d), because the references were cited by or submitted to the U.S. Patent and Trademark Office in prior application Serial No. \_\_\_\_\_ filed \_\_\_\_\_, which is relied upon for an earlier filing date under 35 U.S.C. § 120.

☐ To the best of applicants' belief, the pertinence of the foreign-language references are believed to be summarized in the attached English abstracts and in the figures, although applicants do not necessarily vouch for the accuracy of the translation.

☐ Examiner's attention is drawn to the following co-pending applications, copies of which have been or are being submitted:

Serial No. \_\_\_\_\_ filed \_\_\_\_\_

Serial No. \_\_\_\_\_ filed \_\_\_\_\_

☐ Other: \_\_\_\_\_

Submission of the above information is not intended as an admission that any item is citable under the statutes or rules to support a rejection, that any item disclosed represents analogous art, or that those skilled in the art would refer to or recognize the pertinence of any reference without the benefit of hindsight, nor should an inference be drawn as to the pertinence of the references based on the order in which they are presented. Submission of this statement should not be taken as an indication that a search has been conducted, or that no better art exists.

It is respectfully requested that the cited information be expressly considered during the prosecution of this application and the references made of record therein.

#### FEES

<input checked="" type="checkbox"/>	<p><b>37 CFR 1.97(b):</b> No fee is believed due in connection with this submission, because the information disclosure statement submitted herewith satisfies one of the following conditions ("X" indicates satisfaction):</p> <ul style="list-style-type: none"><li><input type="checkbox"/> Within three months of the filing date of a national application other than a continued prosecution application under 37 CFR 1.53(d), or</li><li><input type="checkbox"/> Within three months of the date of entry into the national stage of an international application as set forth in 37 CFR 1.491 or</li><li><input checked="" type="checkbox"/> Before the mailing date of a first Office Action on the merits, or</li><li><input type="checkbox"/> Before the mailing of a first Office action after the filing of a request for continued examination under 37 CFR 1.114.</li></ul> <p>Although no fee is believed due, if any fee is deemed due in connection with this submission, please charge such fee to Deposit Account 19-1970.</p>
<input type="checkbox"/>	<p><b>37 CFR 1.97(c):</b> The information disclosure statement transmitted herewith is being filed after all the above conditions (37 CFR 1.97(b)), but before the mailing date of one of the following conditions:</p> <ul style="list-style-type: none"><li>(1) a final action under 37 CFR 1.113 or</li><li>(2) a notice of allowance under 37 CFR 1.311, or</li><li>(3) an action that otherwise closes prosecution in the application.</li></ul> <p>This Information Disclosure Statement is accompanied by:</p> <ul style="list-style-type: none"><li><input type="checkbox"/> A Certification (below) as specified by 37 CFR 1.97(e). Although no fee is believed due, if any fee is deemed due in connection with this submission, please charge such fee to Deposit Account 19-1970.</li></ul> <p style="text-align: center;">OR</p> <ul style="list-style-type: none"><li><input type="checkbox"/> Please charge Deposit Account 19-1970 in the amount of \$180.00 for the fee set forth in 37 CFR 1.17(p) for submission of an information disclosure statement. Please credit any overpayment or charge any underpayment to Deposit Account 19-1970.</li></ul>

<input type="checkbox"/>	<p><b>37 CFR 1.97(d):</b> This Information Disclosure Statement is being submitted after the period specified in 37 CFR 1.97(c).</p> <p style="padding-left: 40px;"> <input type="checkbox"/> This information Disclosure Statement includes a Certification (below) as specified by 37 CFR 1.97(e)  AND  <input type="checkbox"/> Applicants hereby requests consideration of the reference(s) disclosed herein. Please charge Deposit Account 19-1970 in the amount of \$180.00 under 37 CFR 1.17(p). Please credit any overpayment or charge any underpayment to Deposit Account 19-1970. Election to pay the fee should not be taken as an indication that applicant(s) cannot execute a certification. </p>
--------------------------	--

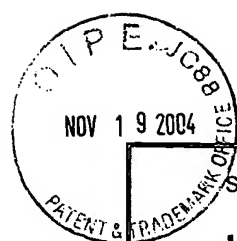
<p><b>Certification (37 CFR 1.97(e))</b>  (Applicable only if checked)</p>
<p><input type="checkbox"/> The undersigned certifies that:</p> <p style="padding-left: 40px;"> <input type="checkbox"/> Each item of information contained in this information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this statement. 37 CFR 1.97(e)(1).  <input type="checkbox"/> A copy of the communication from the foreign patent office is enclosed. </p> <p style="text-align: center;">OR</p> <p style="padding-left: 40px;"> <input type="checkbox"/> No item of information contained in this information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the undersigned after making reasonable inquiry, no item of information contained in this Information Disclosure Statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of this statement. 37 CFR 1.97(e)(2). </p>

Respectfully submitted,

SHERIDAN ROSS P.C.

By: Angela Dallas Sebor  
Angela Dallas Sebor  
Registration No. 42,460  
1560 Broadway, Suite 1200  
Denver, CO 80202-5141  
(303) 863-9700

Date: November 17, 2008



Substitute for form 1449A/PTO

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT****Complete if Known**

Application Number	10/823,397
Filing Date	April 12, 2004
First Named Inventor	Deng
Art Unit	
Examiner Name	
Attorney Docket Number	3161-18-3

Sheet	1	of	2
-------	---	----	---

**U.S. PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Document Number Number-kind Code <sup>2 (if known)</sup>	Publication Date MM-DD-YYYY	Name of Patentee of Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	1	US-4,282,351	08/04/1981	Muzzarelli	
	2	US-4,806,474	02/21/1989	Hershberger	
	3	US-5,246,840	09/21/1993	Nilsson	
	4	US-5,739,015	04/14/1998	Srinivasan	
	5	US-5,876,713	03/02/1999	Nishi et al.	
	6	US-6,323,189	11/27/2001	Hardinge-Lyme	
	7	US-6,465,179	10/15/2002	Thireos et al.	
	8	US-6,534,294	03/18/2003	Lee et al.	
	9	US-6,743,598	06/01/2004	Selitrennikoff et al.	
	10	US-2002/0001831A1	01/03/2002	Defrees et al.	

**FOREIGN PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document Country Code <sup>2</sup> ; Number <sup>3</sup> ; Kind Code <sup>4</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>5</sup>
	11	PCT - WO01/68714A1	09/20/2001	Cargill Incorporated		
	12	PCT - WO02/085951A2	10/31/2002	Technology Resource Int'l Corporation		
		-				
		-				
		-				
		-				
		-				
		-				

**OTHER ART (Including Author, Title, Date, Pertinent Pages, etc.)**

Examiner Initials*	Cite No. <sup>1</sup>	
	13	Araki et al., 1975 <i>Eur. J. Biochem.</i> , 55:71-78
	14	Badet et al., 1987, <i>Biochemistry (Mosc.)</i> , 26:1940-1948
	15	Berka, et al., 1989, <i>Biotechnology Adv.</i> , 7:127-154
	16	Borgia et al., 1992, <i>J. Bacteriol.</i> , 174:377-383
	17	Broschat et al., 202, <i>J. Biol. Chem.</i> , 277:14764-14770
Examiner Signature		Date Considered

\*EXAMINER: Initial if reference is considered, whether or not citation is in conformance and not considered. Include copy of this form with next communication to applicant.

The PTO did not receive the following  
listed item(s) FOR

Substitute for form 1449A/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>				<b>Complete if Known</b>	
				Application Number	10/823,397
				Filing Date	April 12, 2004
				First Named Inventor	Deng
				Art Unit	
				Examiner Name	
Sheet	2	of	2	Attorney Docket Number	3161-18-3

18	Bulawa et al., 1986, <i>Cell</i> , 46:213-225
19	Bulik et al., 203, <i>Eukaryotic Cell</i> , 2:886-900
20	Cheng et al., 2000, <i>Biotechnol. Appl. Biochem.</i> 32:197-203
21	Dallies et al., 1998, <i>Yeast</i> , 14:1297-1306
22	Dutka-Malen et al., 1988, <i>Biochimie</i> , 70:287-290
23	Eom et al., 2003, <i>Arch. Pharm. Res.</i> , 26:1036-1041
24	Farkas, V., 1989, <i>The Yeasts</i> , 3:317-341
25	Hofmann et al., 1994, <i>Eur. J. Biochem.</i> , 227:741-747
26	Kauss et al., 1988, <i>Methods Enzymol.</i> , 161:518-523
27	Knorr, D., 2004, <i>Food Technol.</i> , 45:114, 116-120, 122
28	Kumar et al., 2000, <i>Proc. Natl. Acad. Sci. U.S.A.</i> , 97:14218-14223
29	Lagorece et al., 2002, <i>Eur. J. Biochem.</i> , 269:1697-1707
30	Martinou et al., 1995, <i>Carbohydr. Res.</i> , 273:235-242
31	Maw et al., 2002, <i>J. Biotechnol.</i> , 95:189-193
32	McGahren et al., 1984, <i>Process Biochem.</i> , 88-90
33	Mio et al., 1999, <i>J. Biol. Chem.</i> , 274:424-429
34	Mishra et al., 1997, <i>Yeast</i> , 13:327-336
35	Muller et al., 2002, <i>Appl. Environ. Microbiol.</i> , 68:1827-1836
36	Peri et al., 1990, <i>Biochem. Cell Biol.</i> , 68:123-137
37	Plumbridge et al., 1999, <i>J. Bacteriol.</i> , 181:47-54
38	Pochanavanich et al., 2002, <i>Lett. Appl. Microbiol.</i> , 35:17-21
39	Pompeo et al., 2001, <i>J. Biol. Chem.</i> , 276:3833-3839
40	Rane et al., 1993, <i>Food Biotechnol.</i> , 7:11-33
41	Rodriguez-Medina et al., 1998, <i>Cell. Mol. Biol.</i> , 44:919-925
42	Roncero, C., 2002, <i>Curr. Genet.</i> , 41:367-378
43	Roy et al., 2000, <i>J. Biol. Chem.</i> , 275:13580-13587
44	Smith et al., 1996, <i>J. Bacteriol.</i> , 178:2320-2327
45	Synowiecki et al., 1997, <i>Food Chem.</i> , 60:605-610
46	Trilla et al., 1999, <i>J. Cell Biol.</i> , 145:1153-1163
47	Valdivieso et al., 2000, <i>J. Bacteriol.</i> , 182:4752-4757
48	Velichkov et al., 1991, <i>Acta Microbiol. Bulg.</i> , 69-73
49	Watzela et al., 1989, <i>J. Biol. Chem.</i> , 264:8753-8758

Examiner Signature		Date Considered	
-----------------------	--	--------------------	--

\*EXAMINER: Initial if reference is considered, whether or not citation is in conformance and not considered. Include copy of this form with next communication to applicant.